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CONT'D.

36 37. An isolated nucleic acid molecule of claim 36, wherein the nucleic acid molecule comprises nucleic acids selected from the group consisting of DNA, cDNA or RNA.

37 38. An expression vector which comprises the isolated nucleic acid molecule of claim 36 or 37.

38 39. A host cell comprising the isolated nucleic acid molecule of claim 36 or 37.

39 40. An antibody capable of specifically forming a antibody complex with the protein of claim 1.

40 41. The antibody of claim 40, wherein the antibody is conjugated to a detectable agent.

41 42. An agent that inhibits the binding of the protein of claim 1 to the cytoplasmic domain of CD40 receptor.

42 43. A hybridoma cell line which produces the monoclonal antibody of claim 40.

43 44. A method of producing a mammalian protein or polypeptide having the ability to bind the cytoplasmic region of CD40 receptor, which comprises growing the host cell of claim 39 under suitable conditions such that the nucleic acid is transcribed and translated into protein and purifying the protein so produced.

44 45. A method of modulating cellular function regulated by the CD40 in a cell, which comprises introducing into the cell a CD40bp nucleic acid and growing the cell under suitable conditions such that the nucleic acid is transcribed and translated into CD40bp protein in the cell.

45 46. A method for screening for a CD40 immunosuppressive agent, which comprises:
a) providing a CD40 cytoplasmic domain receptor bound to a solid support;

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- b) contacting the agent with the receptor bound support of step a) under conditions favoring binding of the cytoplasmic domain to the receptor to CD40bp;
- c) contacting detectably-labeled CD40bp to the solid support of step b) under conditions favoring binding of CD40 cytoplasmic domain receptor to CD40bp;
- d) detecting the presence of any complex formed between CD40 receptor and CD40bp to form CD40 receptor-CD40bp complex; and
- e) the absence of CD40 receptor-CD40bp complex being indicative that the agent inhibits binding of CD40bp to CD40 receptor and therefore is an immunosuppressive agent.

46 48. A method for screening for a CD40 immunosuppressive agent, which comprises:

- a) providing a CD40 cytoplasmic domain receptor bound to a solid support;
- b) contacting detectably-labeled CD40bp to the solid support of step a) under conditions favoring binding of CD40 cytoplasmic domain receptor to CD40bp;
- c) contacting the agent to be screened with the receptor bound support of step b) under conditions favoring binding of the cytoplasmic domain to the receptor to CD40bp;
- d) detecting the presence of any complex formed between CD40 receptor and CD40bp to form CD40 receptor-CD40bp complex; and
- e) the absence of CD40 receptor-CD40bp complex being indicative that the agent inhibits binding of CD40bp to CD40 receptor and therefore is an immunosuppressive agent.

47 49. A composition comprising the isolated nucleic acid of claim 36 and a carrier.

II. REMARKS

Claims 1 and 35-49 are presently under examination. Claims 2 to 34 have been canceled without prejudice or disclaimer. Applicant expressly reserves his right to file one or more continuation applications pursuant to 35 U.S.C. § 120.